

must have at least one eye (growing point) or sprout to produce a new plant. Eyes are found where the tuberous root and the stalk of last season's plant join. If it is difficult to distinguish the dormant eyes, place clumps in a warm moist place for several weeks or plant in shallow trays to promote sprouting. Cut surfaces should be allowed to dry for several days or dusted with captan or sulfur before planting.

Planting—Select a sunny (minimum of 6 hours) location protected from strong winds. Dahlias grow best in a deep, fertile, well-drained soil with a pH of 6.0 to 6.5; they are not tolerant of water-logged soils. Incorporate 2 to 4 inches of organic matter such as compost, pine bark, or well-aged manure and 2 to 4 lb of 8-8-8 or 10-10-10 per 100 ft² (2 to 4 Tbsp per ft²) before planting.

Dahlias are very sensitive to freezing temperatures. Large tuberous roots may be planted about 2 weeks before the last spring frost date. Small tuberous roots and transplants should not be planted until all danger from frost has passed. Spacing between plants depends upon the cultivar and method of growing: rows, beds, or borders. Large-flowering dahlias should be spaced 3 to 4 ft apart; smaller dahlias can be spaced 2 ft apart.

Dig a hole 8 to 10 inches deep and wide enough to accommodate the tubers. Loosen the soil in the bottom of the hole and refill to a depth of 6 inches. Set the tuberous root on its side, with the eyes facing upward. Cover with 2 to 3 inches of soil. Soil should be filled in around the plants as they develop until the surface is level. Many gardeners insert a stake at the side of each hole at planting for future support.

Summer Care

Apply a 3- to 4-inch layer of mulch using either compost, pine straw, or pine bark. Dahlias are heavy users of water; keep the soil moist but not saturated. Each tuberous root usually produces multiple shoots. While you can leave all the shoots to grow, thinning will produce flowers of higher quality. Leave one to four of the strongest shoots.

When plants are about a foot tall and display 3 to 4 pairs of leaves, pinch out the terminal shoot to encourage branching. One pinching is sufficient for most dahlias; small growing types can be given an additional pinching.

Tall-growing dahlias should be staked to support the long stems and large flowers. Begin staking when the plants are about a foot in height. Fertilize monthly with a water soluble fertilizer or apply 2 to 3 lb of 5-10-10 or 10-10-10 per 100 ft² (2 to 3 Tbsp per ft²) in July. Excessive nitrogen can result in foliage production at the expense of flower production. A second application may be needed on sandy soil or during rainy seasons.

Flower size can be increased by removing lateral flower buds (referred to as disbudding). When the three buds that form at the end of each branch reach the size of small peas, remove the two side buds. Small-flowering types should not be disbudded. Faded flowers should be removed to encourage continuous blooming.

Check plants on a regular basis for diseases, insects, and other pests. The most likely pests are aphids, spider mites, leafhoppers, thrips, and European corn borer. Disease problems include tuber rots, ring spot, vascular wilts, mosaic virus, powdery mildew, and botrytis blight. Disease problems can be reduced by following recommended cultural practices and by providing good air circulation. Remove or treat affected plants or plant parts when first observed.

Tuber Storage

Dahlias are hardy to USDA Zone 8 where they can be cut back and left in the ground to overwinter. In Zone 7b, dahlias sometimes overwinter in the ground depending on soil drainage and severity of the winter. It is recommended the tuberous roots be lifted and stored during the winter. After a killing frost, cut the foliage back 2 to 4 inches above the ground. Lift each clump separately with a spading fork. To avoid spearing tuberous roots, begin digging a foot away from the center of the plant. Gently brush soil off the clump of tuberous roots. Spread the clumps in a well-ventilated, shaded area to cure for a few days. Do not leave the tubers in full sun. Dust injured portions with sulfur to inhibit diseases. Pack each clump upside down in a ventilated box or basket using slightly damp vermiculite, perlite, or peat moss to cover the clumps. During the winter, the tuberous roots should be stored between 35 and 50°F and should not be exposed to hot or cold drafts or damp or very dry conditions. If the tuberous roots begin to shrivel during the winter, sprinkle lightly with water.